

## OMPANY NEWS

## I.B.M. Enlists Software Aid

## 3-Year Study At University

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PHILADELPHIA, Aug. 13 — The International Business Machines Corporation today announced a three-year multimillion-dollar project in artificial intelligence with Carnegie-Mellon University, as part of what the company called "a major new I.B.M. initiative" in advanced software.

Under the terms of the agreement, I.B.M. will provide equipment and financing for Carnegie-Mellon researchers developing "expert systems" that attempt to simulate human reasoning and draw conclusions, along with longer-range work in speech recognition and robotics.

While I.B.M. said it would not have exclusive access to the results of the research, company executives attending the annual meeting of the American Association for Artificial Intelligence here said they expected those results would become part of I.B.M.'s future software products.

The move appears to be part of a major shift within I.B.M., which has traditionally been weak in applications software, programs that perform specific tasks for computer users. Artifical intelligence, a set of programming techniques that gen-

erally make computer systems easier to use and capable of performing many jobs without human intervention, are considered essential to that effort. They also use an extraordinary amount of computing power and memory, meaning the prospect of additional hardware sales.

## 'Something of an Awakening'

"There is something of an awakening under way at I.B.M.," said Raj Reddy, head of Carnegie-Mellon's robotics institute and a leading authority in artificial intelligence. "Four or five years ago, when you mentioned artificial intelligence, I.B.M. shrugged its shoulders."

I.B.M. executives here said that within the last year the company had created an artificial-intelligence project office that reports directly to I.B.M.'s management committee, with unusually broad responsibility to integrate new techniques in I.B.M. products. In coming months, the company is expected to bring out its first commercially available expert systems, primarily programs designed for banks, insurance companies and manufacturers.

"Strategically, this is now a very high priority for us," said Herbert Schorr, who is directing I.B.M.'s artificial-intelligence initiative. "It should enable us to attract a new set of users — like loan officers or insurance underwriters — who can retrieve facts off their computers, but get little analysis or instruction about how to apply rules."

Many artificial-intelligence products are "development tools," or programs that help computer designers prepare other programs; the use of expert systems has primarily been limited to medicine and manufacturing, although an increasing variety of such systems is coming onto the market.

Much of the most promising technology is still in university laboratories, notably at Carnegie-Mellon, the Massachusetts Institute of Technology and Stanford University. Thus, companies are forming alliances with those institutions, especially because it is relatively inexpensive to transport software from the laboratory to the marketplace.

Under the agreement announced today, I.B.M. will provide Carnegie-Mellon with about \$5.5 million in computer equipment and will negotiate contracts for individual studies in artificial intelligence. The equipment is primarily the PC/RT, an engineeering and scientific computer introduced earlier this year that I.B.M. believes particularly well suited for artificial-intelligence applications.

Two years ago I.B.M. was stung by charges that a pact with Carnegie-Mellon to help develop the PC/RT bound the university to secrecy agreements that many academics called unethical. In today's announcement, it was careful to say the project would be "open research."

"Carnegie-Mellon will own the software it develops and is free to publish whatever it wants," said John C. Daily, who heads the company's Academic Information Systems unit. "We will share in the results, but we will not have exclusive access."

